

FIG. 1A

FIG. 1B is a block diagram of a system architecture 136, illustrating a multi-tiered network topology. The architecture includes three main functional blocks: a Protocol Gateway (PG) 116a, a Message Router (MR) 124a, and a Back-End Server (BES) 122a. Each block is represented by a rectangular box with a label and a reference numeral. The PG 116a is connected to the MR 124a, which is in turn connected to the BES 122a. The connections are shown as bidirectional arrows, indicating data flow in both directions. The PG 116a is further connected to a set of external components 116b and 116c, represented by smaller rectangular boxes. The MR 124a is connected to a set of external components 124b and 124c. The BES 122a is connected to a set of external components 122b and 122c. The entire system is labeled 136, with an arrow pointing to the overall architecture.

136

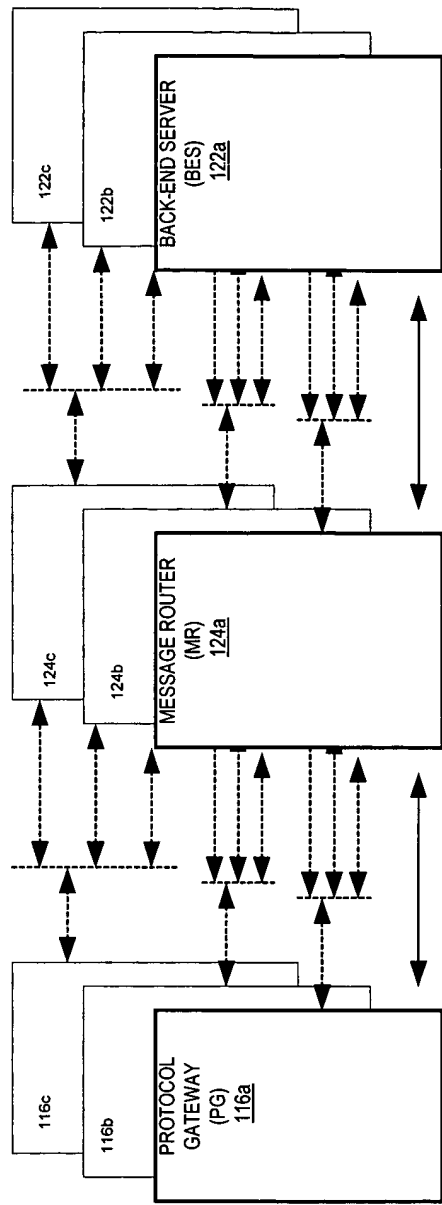


FIG. 1B

138

DURING DISCOVERY SERVICES/REGISTRATION EACH BES
REGISTERS:

SERVER ID,
SERVICE TYPE, AND
MESSAGE TYPE
SUPPORTED BY EACH BES

ROUTING BASED ON CONTENT INSTEAD OF ADDRESS

UNIQUE MESSAGE KEY
INCLUDES:

SERVER ID,
SERVICE TYPE, AND
MESSAGE TYPE

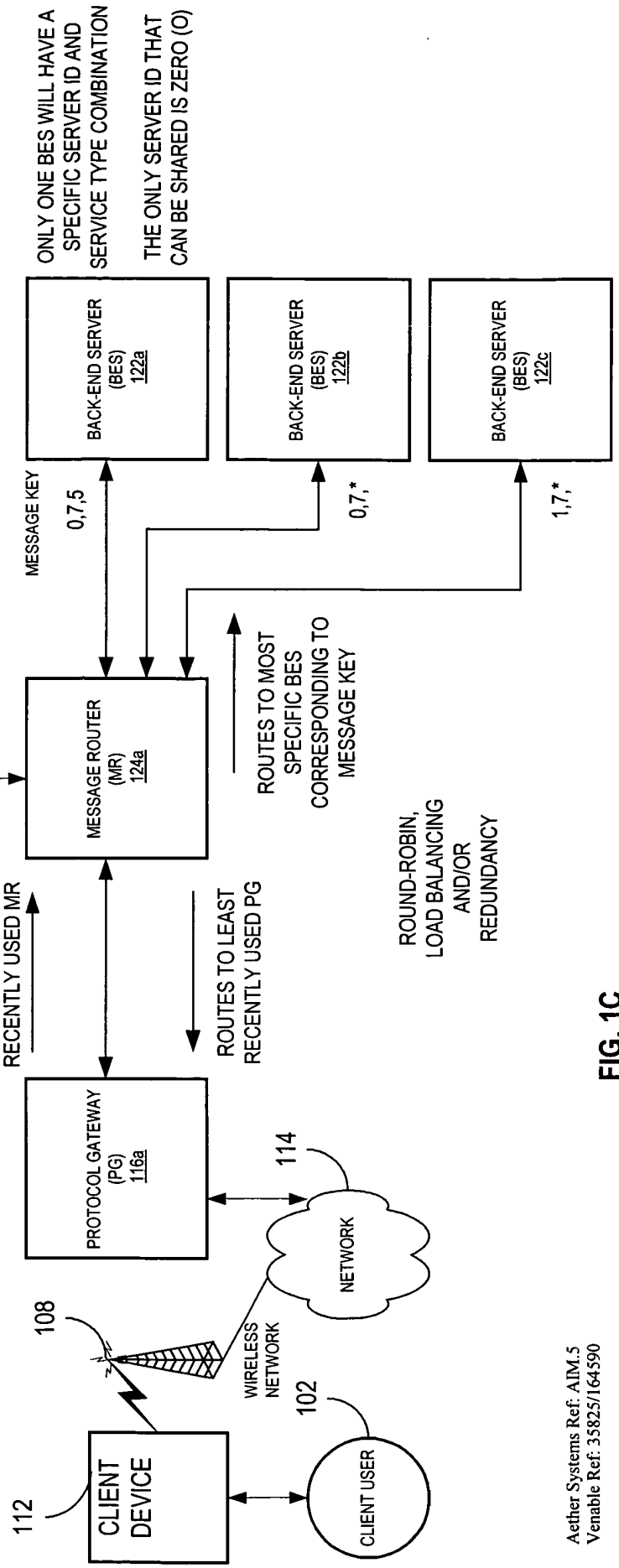
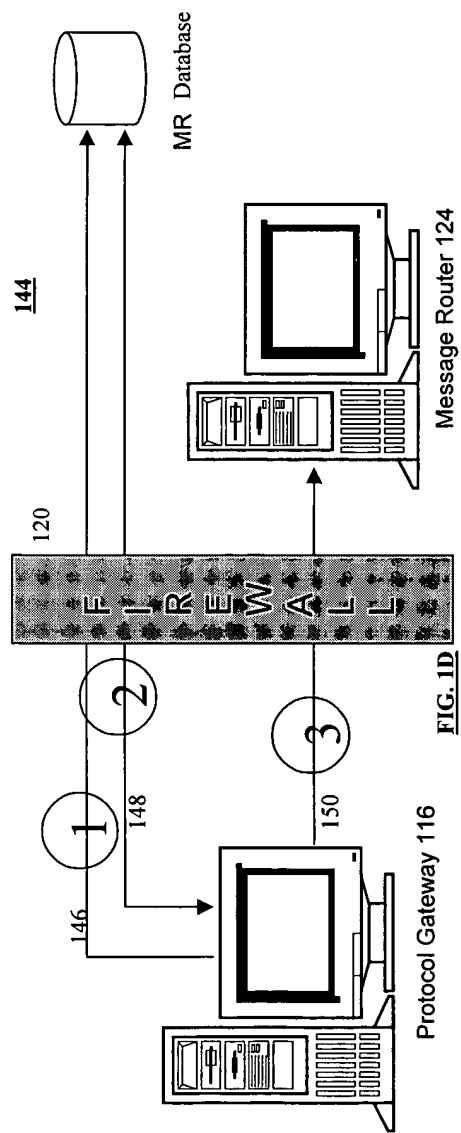


FIG. 1C

FIG. 1D



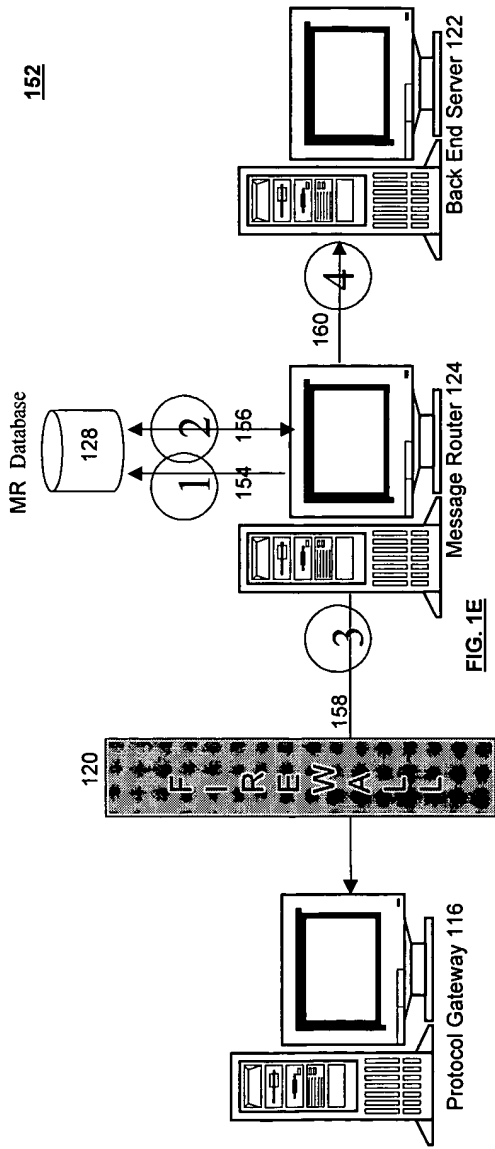


FIG. 1F is a block diagram of a system architecture. The diagram shows a central component labeled 162, which is connected to three other components: 128, 124, and 122. Component 128 is labeled 'MR Database' and is represented by a cylinder icon. Component 124 is labeled 'Message Router' and is represented by a computer monitor icon. Component 122 is labeled 'Back End Server' and is represented by a computer monitor icon. The connections are as follows: a bidirectional arrow labeled 164 connects 128 and 162; a bidirectional arrow labeled 166 connects 122 and 162; and a unidirectional arrow labeled 168 points from 124 to 122. The labels 128, 124, and 122 are positioned below their respective icons. The label 162 is positioned to the left of the central component. The label 164 is positioned above the bidirectional arrow between 128 and 162. The label 166 is positioned above the bidirectional arrow between 122 and 162. The label 168 is positioned above the unidirectional arrow between 124 and 122. The label 1 is positioned to the left of the bidirectional arrow between 128 and 162. The label 2 is positioned to the left of the bidirectional arrow between 122 and 162. The label 3 is positioned to the left of the unidirectional arrow between 124 and 122. The label FIG. 1F is positioned to the right of the diagram.

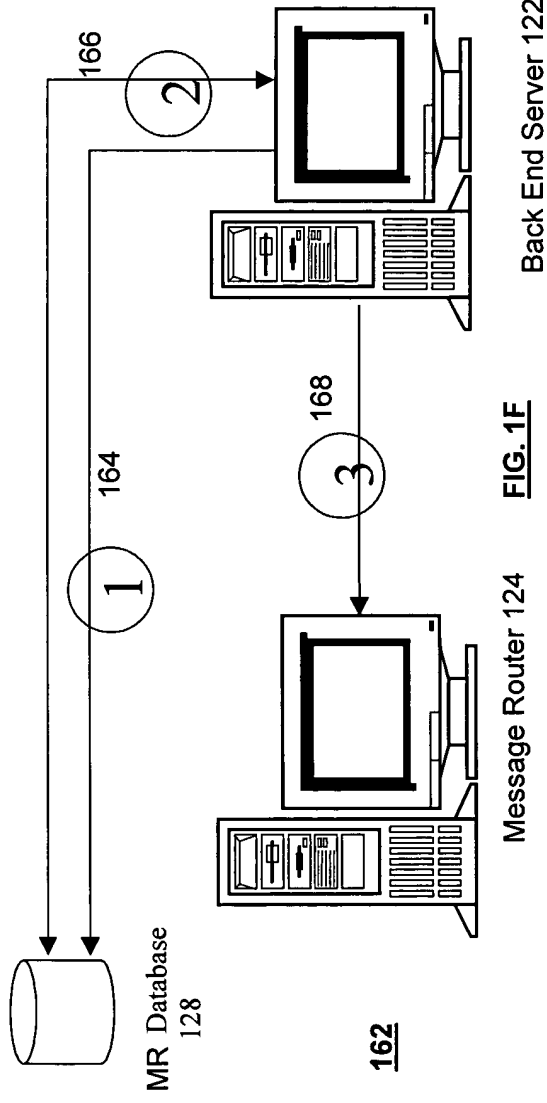


FIG. 1F

FIG. 2 is a block diagram of a system 200 for providing a secure connection between a client device 112 and a destination web server 210.

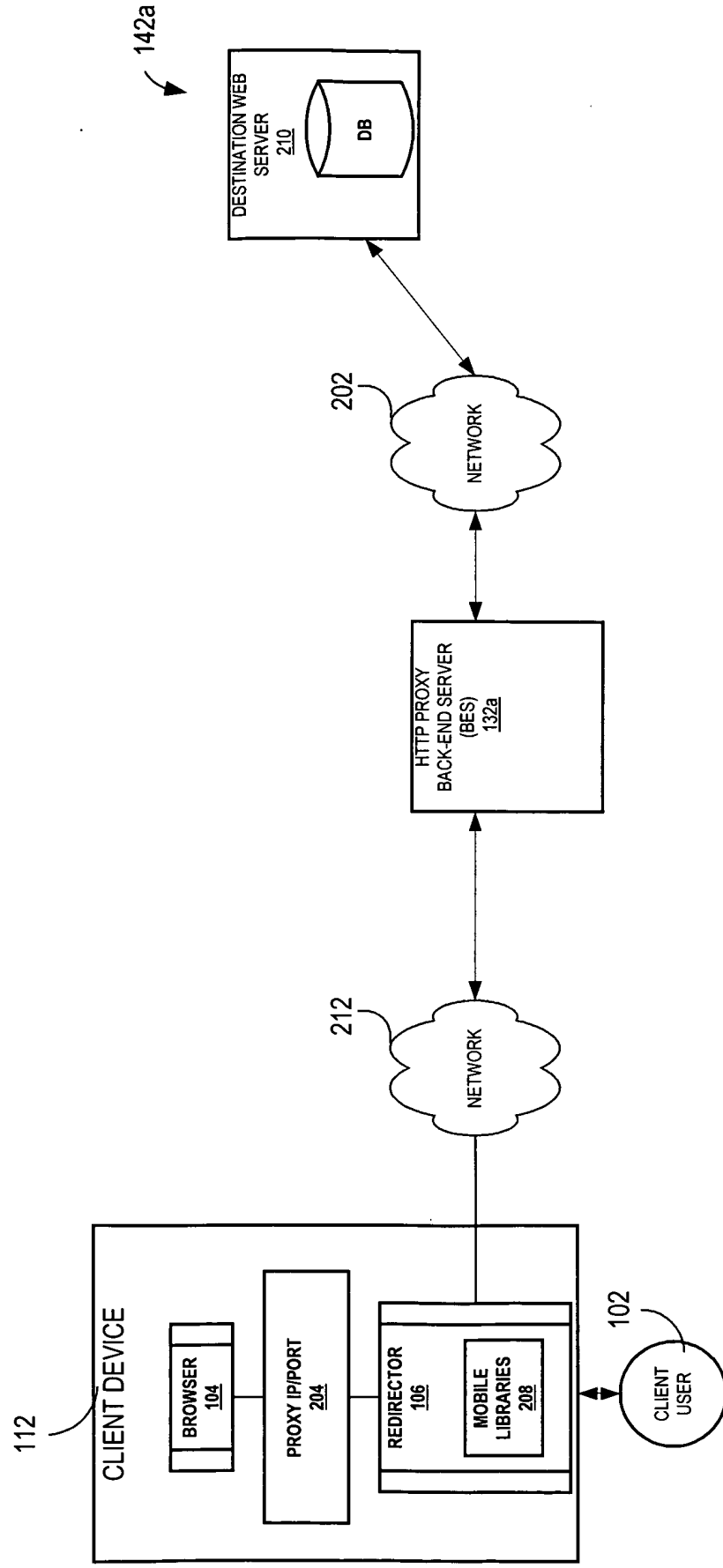


FIG. 2

OSI

LAYER 7	APPLICATIONS LAYER 302				
LAYER 4	SIMPLE NETWORK TRANSPORT LAYER (SNTL) 304				
LAYER 3	NETWORK LAYER 306				
LAYERS 1 & 2	PUBLIC SWITCHED TELEPHONE NETWORK (PSTN) 308a	CELLULAR DIGITAL PACKET DATA (CDPD) 308b	MOBITEX RIM 308c	ARDIS 308d	GPRS, OTHER, AND FUTURE WIRELESS PROTOCOLS ... 308e
					GLOBAL SYSTEM FOR WIRELESS MESSAGING (GSM) 308f

FIG. 4 is a block diagram of a system 400 for device authentication and reauthentication. The system 400 includes a client device 112, a message router (MR) 124, a message router database (MR DB) 128, and a back-end server (BES) 122. The client device 112 communicates with the message router 124 via a network. The message router 124 is connected to the MR DB 128 and the BES 122. The message router 124 receives a device authentication request (1) from the client device 112 and sends a negative acknowledgment (3) back. The message router 124 also receives a reauthentication request (4) from the client device 112 and sends a success message (6) back. The message router 124 sends a send request (7) to the client device 112. The message router 124 is also connected to the BES 122 via a network (8).

400

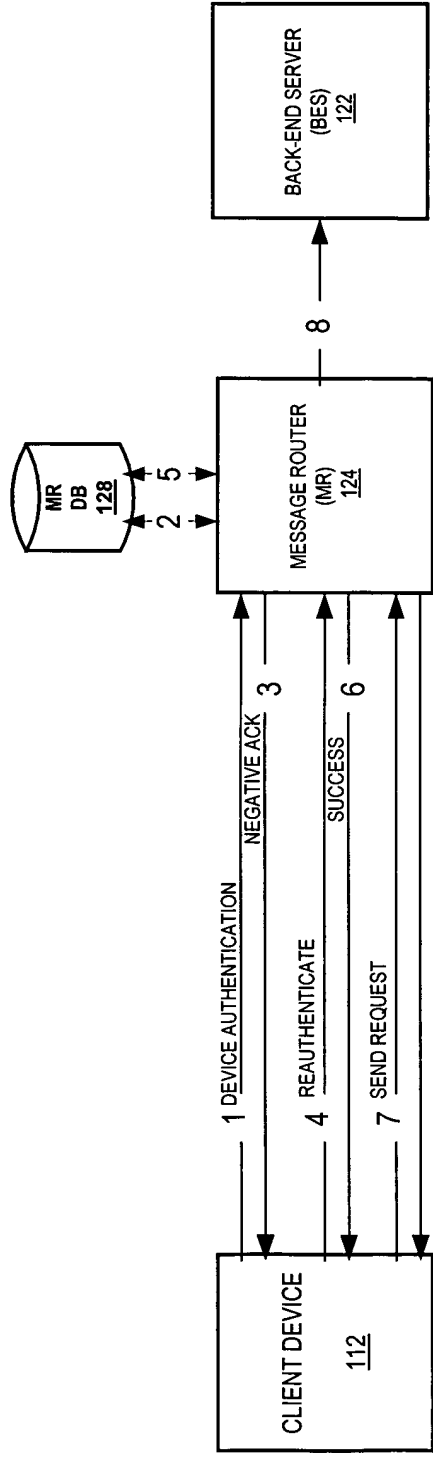


FIG. 4

FIG. 5 is a sequence diagram illustrating a device authentication process between a Client Device 112 and a Message Router (MR) 124, which is connected to a Message Router Database (MR DB) 128.

500

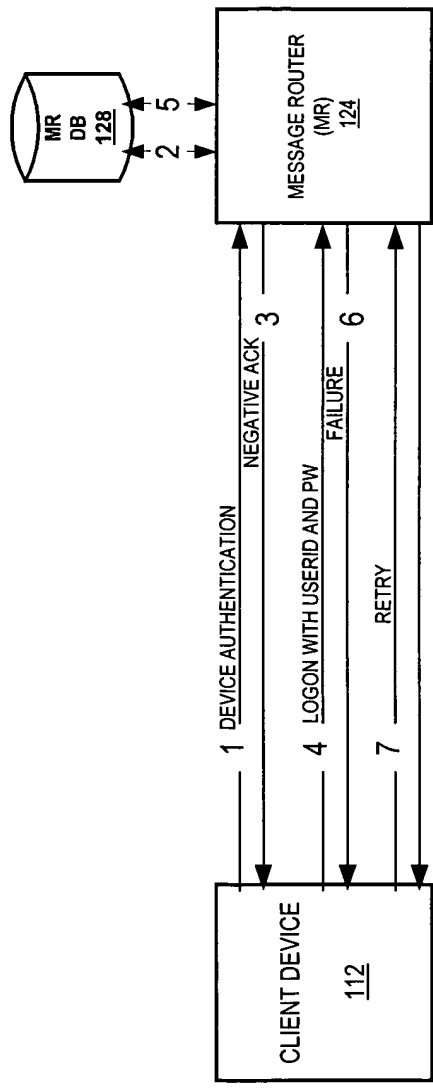


FIG. 5

FIG. 6A is a block diagram of a system 600, in accordance with an embodiment of the present invention.

600

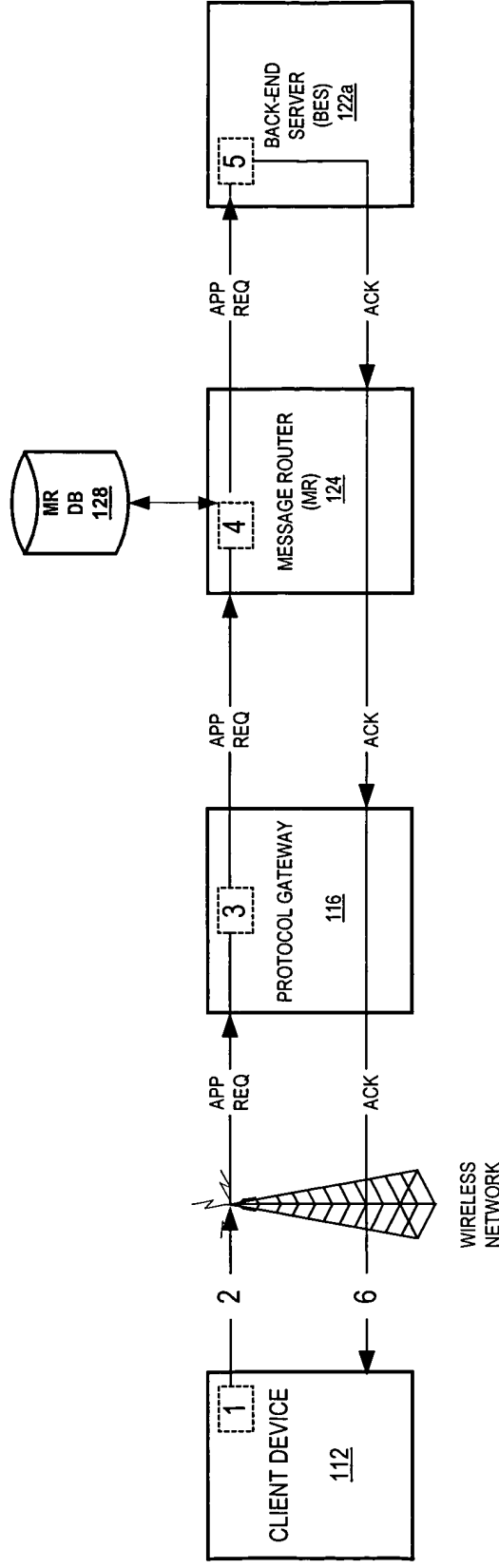


FIG. 6A

602

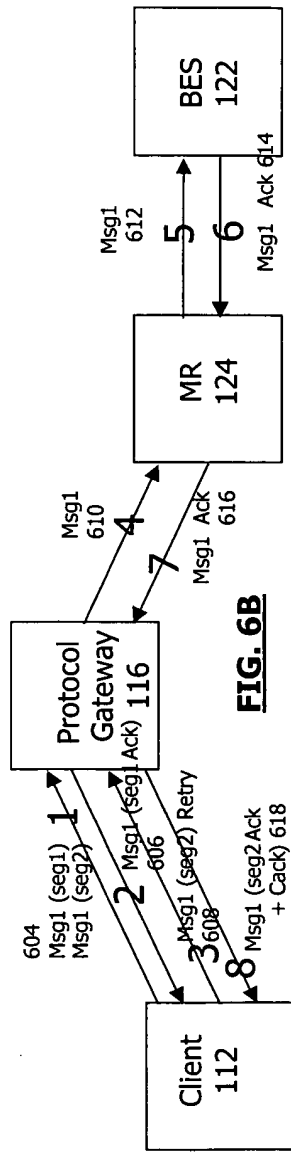


FIG. 6B

FIG. 7A is a block diagram of a system 700, in accordance with an embodiment of the present invention.

700

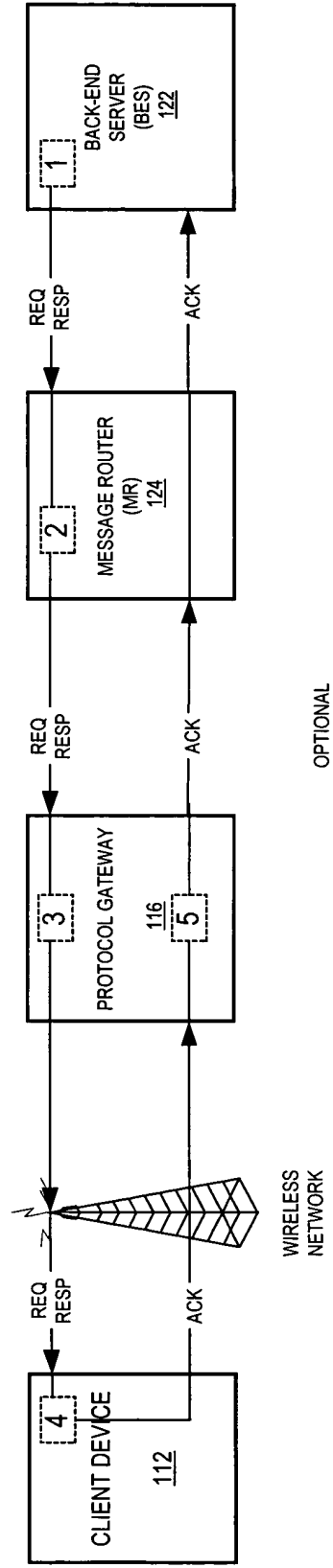


FIG. 7A

702

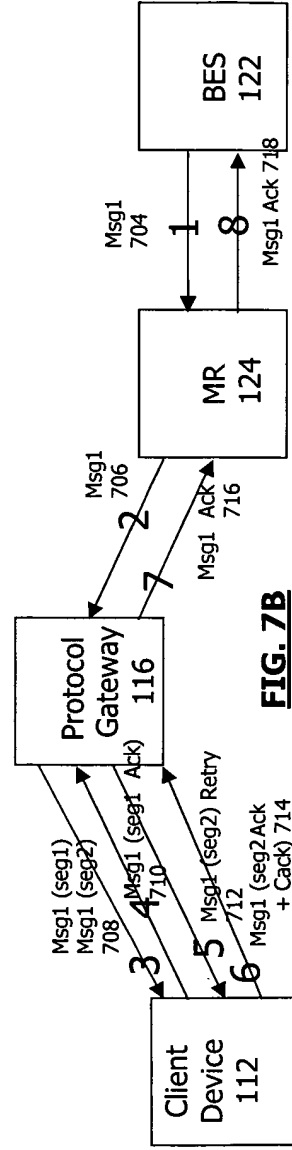


FIG. 8A is a block diagram of a system 800 for alerting a client device 112 via a wireless network 116.

800

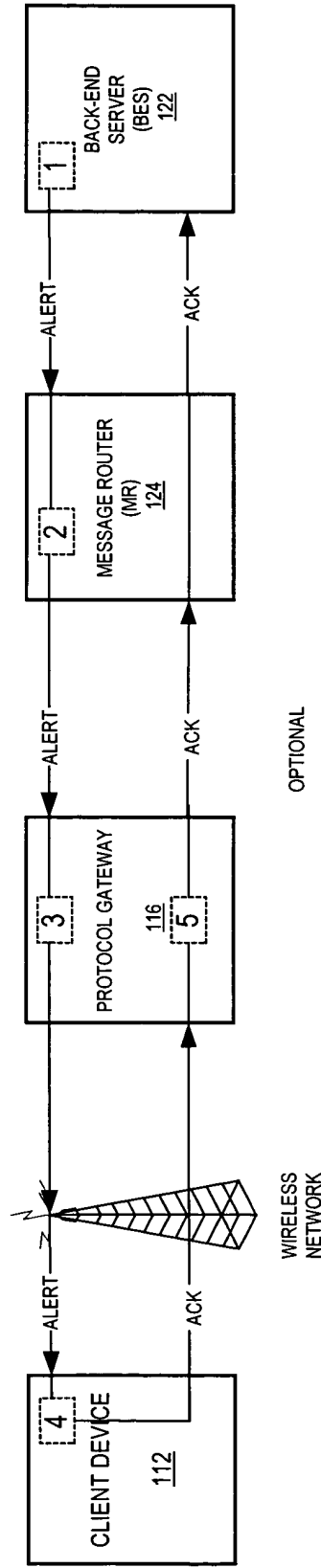


FIG. 8A

XML-query conditions.

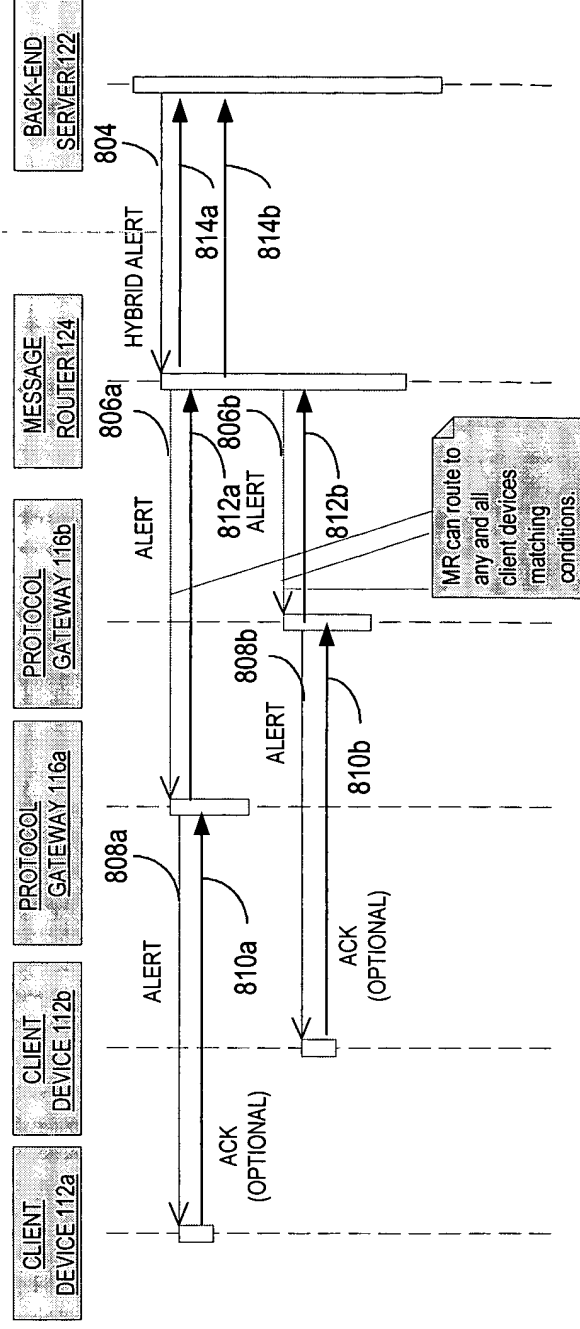


FIG. 8B

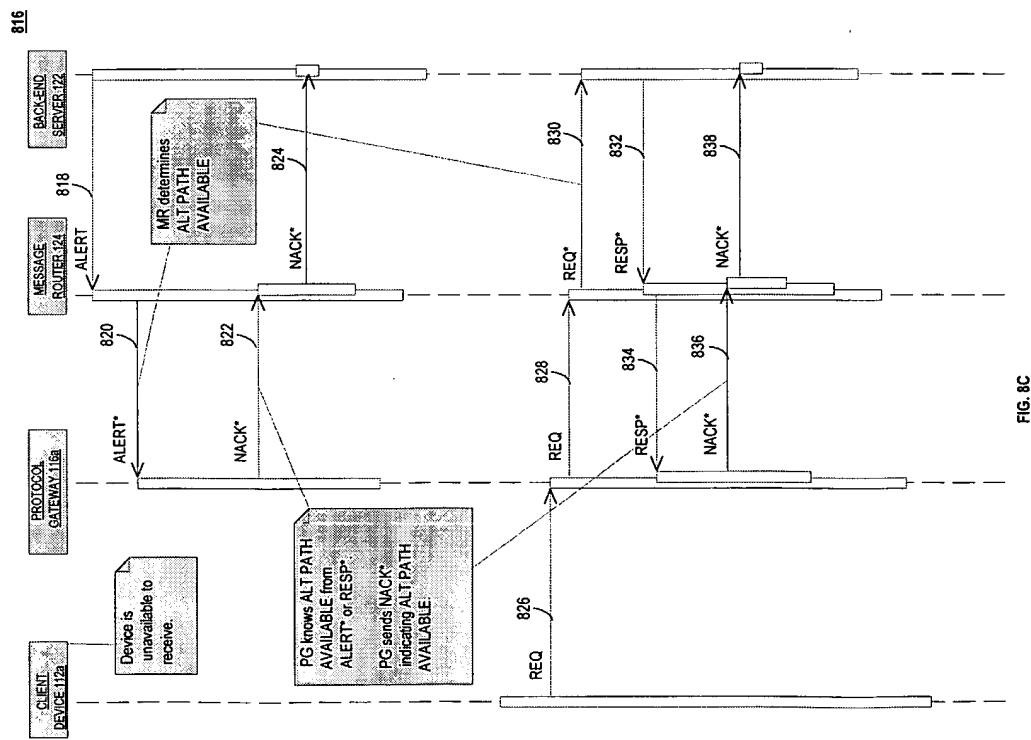


FIG. 9 is a block diagram of an exemplary segment header structure 900. The structure 900 includes a VER field 902 (2 bits), a MESSAGE ID field 904 (8 bits), a FLAGS field 906 (15 bits), and a TOTAL LENGTH field 908 (20 bits). The structure 900 is also associated with a SEGMENT # field 910.

900

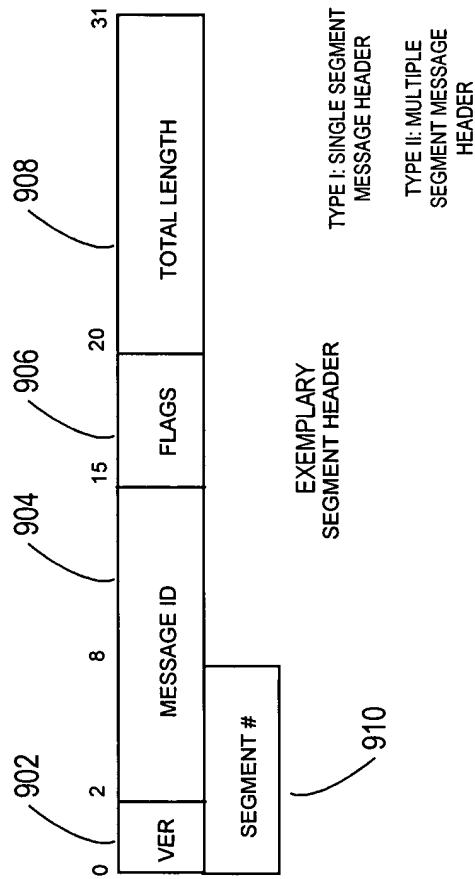


FIG. 9